

AMENDMENTS TO THE CLAIMS

1-6. (Cancelled)

7. (Currently Amended) A force/torque (FT) sensor, comprising:

a sensor housing~~[[;]]~~ containing at least one transducer ~~within said sensor housing~~
operative to convert an applied force or torque to a transducer electrical signal;
electronics operative to convert said transducer electrical signal to a force/torque signal
suitable for reception by a data acquisition system
a power supply connected to said sensor housing in power and electrical signal flow
relationship, the power supply operative to connect to a data acquisition system
via a multi-conductor cable and further operative to transmit said force/torque
signal in analog format on the multi-conductor cable;
~~electronics operative to convert said transducer electrical signal to a force/torque signal~~
~~suitable for reception by a data acquisition system and to transmit said~~
~~force/torque signal in analog format on a multi-conductor cable; and~~
memory for storing digital calibration data associated with said sensor.

8. (Original) The FT sensor of claim 7 wherein said electronics and said memory reside within said sensor housing.

9. (Currently Amended) The FT sensor of claim ~~[[8]]~~ 7 wherein said ~~electronics~~ power supply is operative to transmit said force/torque signal in analog format on one channel of ~~said~~ the multi-conductor cable, and to transmit said digital calibration data as a digital bitstream on another channel of ~~said~~ the multi-conductor cable.

10. (Original) The FT sensor of claim 9 wherein said force/torque signal and said calibration data are transmitted as differential pairs.

11. (Cancelled)

12. (Currently Amended) The FT sensor of claim [[11]] 7 wherein said electronics and said memory reside within said power supply ~~housing~~.

13-14. (Cancelled).

15. (Currently Amended) The FT sensor of claim 7 further comprising a data acquisition system ~~attached~~ connected to said power supply via a multi-conductor cable and operative to receive said force/torque signal and said calibration data as analog inputs.

16. (Original) The FT sensor of claim 15 wherein said data acquisition system interprets said calibration data as a digital bitstream.

17. (Currently Amended) The FT sensor of claim 7 further comprising:

a data acquisition system ~~attached~~ connected to said power supply via a multi-conductor cable to receive said force/torque signal; and
a data communications port also ~~attached~~ connected to said power supply via a multi-conductor cable to receive said calibration data.

18. (Original) The FT sensor of claim 17 wherein said data communications port complies with the EIA RS-232 standard.

19. (Original) The FT sensor of claim 18 wherein the two differential lines of said multi-conductor cable carrying said calibration data are connected to the receive data and signal ground connectors of said data communications port.

20. (Cancelled)